Amendments to the Specification:

Replace the paragraph beginning on page 3, line 21 with the following rewritten paragraph:

~~Figure 4 is~~ Figure 4A is an illustration showing, the conditional probability that a given pixel is an iris pixel stated as a function of a specific red intensity and the conditional probability that a given pixel is a non-iris pixel as a function of a specific red ~~intensity~~ intensity I.

B1

Replace the paragraph beginning on page 3, line 25 with the following rewritten paragraph:

~~Figure 4a~~ Figure 4B is a flowchart presenting the process of developing a statistical model representing the conditional probability that a given pixel is an iris pixel as a function of a specific red intensity level and the a statistical model representing the conditional probability that a given pixel is an iris pixel as a function of a specific red intensity level.

B2

Replace the paragraph beginning on page 7, line 22 with the following rewritten paragraph:

Instead, the present invention classifies a pixel as an iris or a non-iris pixel on the basis of a probability analysis. This probability analysis applies an iris statistical model and a non-iris statistical model. The iris statistical model defines the probability that a given pixel is an iris pixel based upon the red intensity level of the pixel. Similarly, the non-iris statistical model defines the probability that a given pixel is not an iris pixel based upon the red intensity level of the pixel. The relationship between these models is non-linear as is shown by way of example in ~~Fig. 4 which~~ Fig. 4A which is an illustration of the conditional probability 402 that a given pixel is an iris pixel stated as a function of a specific red intensity and the conditional probability 404 that a given pixel is a non-iris pixel as a function of a specific red intensity I.

B3

Replace the paragraph beginning on page 9, line 4 with the following rewritten paragraph:

~~Fig. 4a~~ Fig. 4B shows a flow chart illustrating the processes used in the Iris Color/Bayes Model Training step **27** of Fig. 2 for developing the

B4

statistical models used to classify the pixels. This step will be performed before the method for detecting irises is used to detect iris pixels. As is shown, a large sample of frontal face images are collected and examined. All iris pixels and non-iris pixels in the face region of each image are then manually identified **40, 42**. Next, the conditional probability that a given iris pixel has a specific red intensity I, $P(I \mid iris)$ is computed and the probability of the occurrence of an iris in the face oval region, $P(iris)$ **44** is computed; then the conditional probability that a given noniris pixel has a specific red intensity I, $P(I \mid noniris)$ is computed and finally the probability of the occurrence of a non-iris pixel in the face oval region, $P(noniris)$ **46** is computed. The computed statistical models of iris and non-iris are used in the Bayes formula to produce the conditional probability that a given pixel intensity belongs to an iris, $P(iris \mid I)$ **48**. In application, the Bayes model can be used to generate a look-up table to be used in Iris Color Pixel Detection step **28.**